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ABSTRACT

A number of researchers argue that the classroom must nurture an environment providing modeling, rehearsal, and coaching, for students and teachers alike, to develop a capacity for critical thinking. Despite the difficulties, many teachers are now promoting critical thinking in the classroom. They are (1) promoting critical thinking by infusing instruction with opportunities for their students to read widely, to write, and to discuss; (2) frequently using course tasks and assignments to focus on an issue, question, or problem; and (3) promoting metacognitive attention to thinking so that students develop a growing awareness of the relationship of thinking to reading, writing, speaking, and listening. (RS)

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Critical Thinking: Promoting It in the Classroom

by M. Carrol Tama

The NCTE Committee on Critical Thinking and the Language Arts defines critical thinking as "a process which stresses an attitude of suspended judgment, incorporates logical inquiry and problem solving, and leads to an evaluative decision or action." In a new monograph copublished by the ERIC Clearinghouse on Reading and Communication Skills, Siegel and Carey (1989) emphasize the roles of signs, reflection, and skepticism in this process.

Ennis (1987) suggests that "critical thinking is reasonable, reflective thinking that is focused on deciding what to believe or do." However defined, critical thinking refers to a way of reasoning that demands adequate support for one's beliefs and an unwillingness to be persuaded unless the support is forthcoming.

Why should we be concerned about critical thinking in our classrooms? Obviously, we want to educate citizens whose decisions and choices will be based on careful, critical thinking. Maintaining the right of free choice itself may depend on the ability to think clearly. Yet, we have been bombarded with a series of national reports which claim that "Johnny can't think" (Mullis, 1983; Gardner, 1983; *Action for Excellence*, 1983). All of them call for schools to guide students in developing the higher level thinking skills necessary for an informed society.

Skills needed to begin to think about issues and problems do not suddenly appear in our students (Tama, 1986; 1989). Teachers who have attempted to incorporate higher level questioning in their discussions or have administered test items demanding some thought rather than just recall from their students are usually dismayed at the preliminary results. Unless the students have been prepared for the change in expectations, both the students and the teacher are likely to experience frustration.

What is needed to cultivate these skills in the classroom? A number of researchers claim that the classroom must nurture an environment providing modeling, rehearsal, and coaching, for students and teachers alike, to develop a capacity for informed judgments (Brown, 1984; Hayes and Alvermann, 1986).

Teacher Change

Hayes and Alvermann found that coaching teachers led to significant changes in students' discussion, including more critical analysis. The supervision model that was used allowed teachers and researchers to meet for preobservation conferences in order to set the purpose for the observation. Then, each teacher's lessons were videotaped and observers made field notes to supplement the videotape. After the lesson, the researchers met to analyze the tape and notes and to develop strategies for coaching the teachers. In another post-observation meeting, the teachers and supervisors planned future lessons incorporating the changes they felt necessary to promote and improve critical discussion in the classes.

Hayes and Alvermann report that this coaching led teachers to acknowledge students' remarks more frequently and to respond to the students more elaborately. It significantly increased the proportion of text-connected talk students used as support for their ideas and/or as cited sources of their information. In addition, students' talk became more inferential and analytical.

A summary of the literature on the role of "wait time," (the time a teacher allows for a student to respond as well as the time an instructor waits after a student replies) found that it had an impact on students' thinking (Tobin, 1987). In this review of studies, Tobin found that those teachers who allowed a 3-5 second pause between the question and response permitted students to produce cognitively complex discourse. Teachers who consciously

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managed the duration of pauses after their questioning and provided regular intervals of silence during explanation created an environment where thinking was expected and practiced.

However, Tobin concludes that "wait time" in and of itself does not insure critical thinking. A curriculum which provides students with the opportunity to develop thinking skills must be in place. Interestingly, Tobin found that high achievers consistently were permitted more wait time than were less skilled students, indicating that teachers need to monitor and evaluate their own behavior while using such strategies.

Finally, teachers need to become more tolerant of "conflict," or confrontation, in the classroom. They need to raise issues which create dissonance and refrain from expressing their own bias, letting the students debate and resolve problems. Although content area classroom which encourages critical thinking can promote a kind of some psychological discomfort in some students as conflicting accounts of information and ideas are argued and debated, such feelings may motivate them to resolve an issue (Festinger, 1957). They need to get a feel for the debate and the conflict it involves. Isn't there ample everyday evidence of this: Donahue, Geraldo Rivera, *USA Today*?

Authors like Frager (1984) and Johnson and Johnson (1979) claim that to really engage in critical thinking, students must encounter the dissonance of conflicting ideas. Dissonance, as discussed by Festinger, 1957 promotes a psychological discomfort which occurs in the presence of an inconsistency and motivates students to resolve the issue.

To help students develop skills in resolving this dissonance, Frager (1984) offers a model for conducting critical thinking classes and provides samples of popular issues that promote it: for example, banning smoking in public places, the bias infused in some sports accounts, and historical incidents written from both American and Russian perspectives.

If teachers feel that their concept of thinking is instructionally useful, if they develop the materials necessary for promoting this thinking, and if they practice the procedures necessary, then the use of critical thinking activities in the classroom will produce positive results.

Matthew Lipman (1988) writes, "The improvement of student thinking—from ordinary thinking to good thinking—depends heavily upon students' ability to identify and cite good reasons for their opinions."

Training students to do critical thinking is not an easy task. Teaching which involves higher level cognitive processes, comprehension, inference, and decision making often proves problematic for students. Such instruction is often associated with delays in the progress of a lesson, with low success and completion rates, and even with direct negotiations by students to alter the demands of work (Doyle, 1985). This negotiation by students is understandable. They have made a career of passive learning. When met by instructional situations in which they may have to use some mental energies, some students resist that intellectual effort. What emerges is what Sizer (1984) calls "conspiracy for the least," an agreement by the teacher and students to do just enough to get by.

Despite the difficulties, many teachers are now promoting critical thinking in the classroom. They are nurturing this change from ordinary thinking to good thinking admirably. They are 1) promoting critical thinking by infusing instruction with opportunities for their students to read widely, to write, and to discuss; 2) frequently using course tasks and assignments to focus on an issue, question, or problem; and 3) promoting metacognitive attention to thinking so that students develop a growing awareness of the relationship of thinking to reading, writing, speaking, and listening. (See Tama, 1989.)

Another new ERIC/RCS and NCTE monograph (Neilsen, 1989) echoes similar advice, urging teachers to allow learners to be actively involved in the learning process, to provide consequential contexts for learning, to arrange a supportive learning environment that respects student opinions while giving enough direction to ensure their relevance to a topic, and to provide ample opportunities for learners to collaborate.

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